

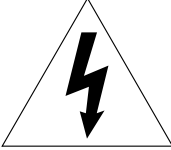

# **marantz®**

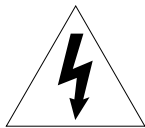
**Model SM6100SA User Guide**

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Power Amplifier



	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
<b>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL</b>		



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## **WARNING**

**TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,  
DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

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**CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE  
BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.**

**ATTENTION: POUR ÉVITER LES CHOCS ÉLECTRIQUES,  
INTRODUIRE LA LAME LA PLUS LARGE DE LA  
FICHE DANS LA BORNE CORRESPONDANTE DE LA  
PRISE ET POUSSER JUSQU'AU FOND.**

# SAFETY INSTRUCTIONS

## READ BEFORE OPERATING EQUIPMENT

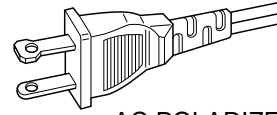
This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

1. Read Instructions — All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions — The safety and operating instructions should be retained for future reference.
3. Heed Warnings — All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions — All operating and use instructions should be followed.
5. Water and Moisture — The appliance should not be used near water—for example, near a bathtub, wash-bowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.
6. Carts and Stands — The appliance should be used only with a cart or stand that is recommended by the manufacturer.
7. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



8. Wall or Ceiling Mounting — The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
9. Ventilation — The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
10. Heat — The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
11. Power Sources — The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

12. Grounding or Polarization — Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.



AC POLARIZED PLUG

13. Power-Cord Protection — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
14. Cleaning — The appliance should be cleaned only as recommended by the manufacturer.
15. Power Lines — An outdoor antenna should be located away from power lines.
16. Nonuse Periods — The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
17. Object and Liquid Entry — Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
18. Damage Requiring Service — The appliance should be serviced by qualified service personnel when:
  - A. The power-supply cord or the plug has been damaged; or
  - B. Objects have fallen, or liquid has spilled into the appliance; or
  - C. The appliance has been exposed to rain; or
  - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
  - E. The appliance has been dropped, or the enclosure damaged.
19. Servicing — The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

## FOREWORD

This section must be read before any connection is made to the mains supply.

### WARNINGS

- Do not expose the equipment to rain or moisture.
- Do not remove the cover from the equipment.
- Do not push anything inside the equipment through the ventilation holes.
- Do not handle the mains lead with wet hands.

## EQUIPMENT MAINS WORKING SETTING

Your Marantz product has been prepared to comply with the household power and safety requirements that exist in your area. Please make sure the mains voltage of your area and the version of this product (written on the back) are correct. The voltage of this version is set to 120V AC only.

## COPYRIGHT

Recording and playback of any material may require consent. For further information refer to the following:

- Copyright Act 1956
- Dramatic and Musical Performers Act 1958
- Performers Protection Acts 1963 and 1972
- any subsequent statutory enactments and orders

## ABOUT THIS USER GUIDE

The names of controls and indicators on this users guide correspond to "FIGURES" on page 8. If you want to know more information, please see "NAME OF CONTROLS AND INDICATORS" on page 9.

## PRECAUTIONS

The following precautions should be taken when operating the equipment.

## GENERAL PRECAUTIONS

When setting the equipment ensure that:

- the ventilation holes are not covered
- air is allowed to circulate freely around the equipment
- it is on a vibration free-surface
- it will not be exposed to interference from an external source
- it will not be exposed to excessive heat, cold, moisture or dust
- it will not be exposed to direct sunlight
- it will not be exposed to electrostatic discharges

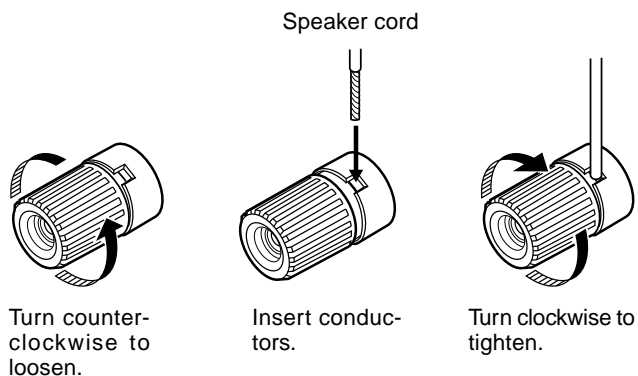
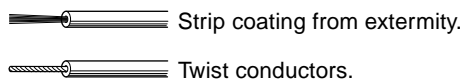
## CONNECTIONS

### CONNECTION OF SPEAKER SYSTEMS

The SM6100A has two pair of speaker terminals on the rear panel (SYSTEM A and B).

- When a pair of speaker system are connected to either SYSTEM A or B speaker terminals, the speakers with impedance of less than 4ohms are connected, the protection circuit may be activated.
- When two pair of speaker systems are simultaneously connected to the SYSTEM A and B speaker terminals, the impedance of each speaker systems should be no less than 8ohms. Connecting a speaker system with lower impedance than 8ohms may activated the protection circuitry and make normal operation impossible.

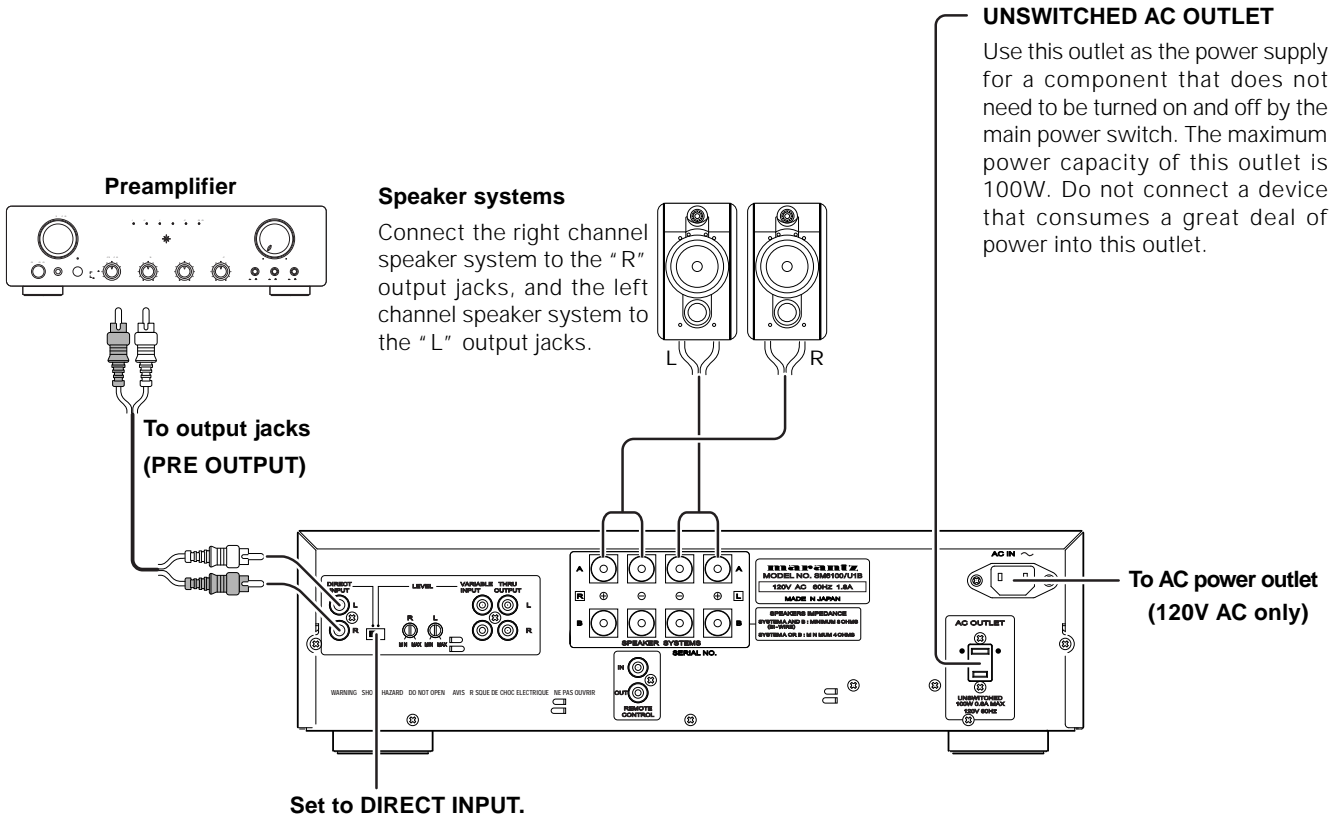
Connection of speaker cord



## DIRECT INPUT CONNECTION

When you desire to have high quality sound reproduction, connect the input signal to DIRECT INPUT jacks and switch the INPUT MODE switch to DIRECT INPUT position.

The LEVEL controls on the rear panel cannot be used in this mode (Fixed input level).



For the best sound quality, we recommend that the LEVEL controls be set to the MIN position at the DIRECT INPUT connection.

# VARIABLE INPUT CONNECTION

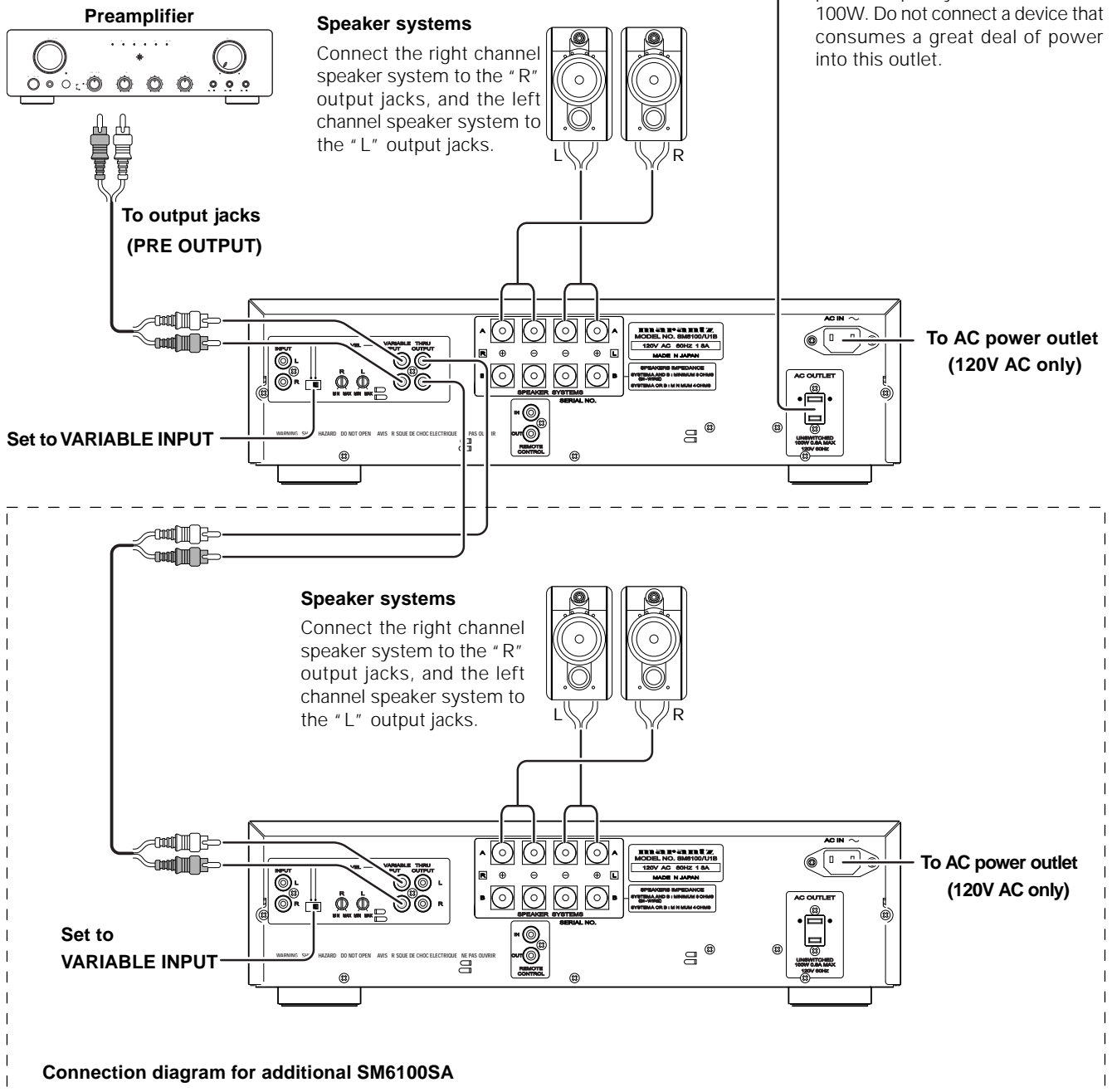
When you connect the input signal to VARIABLE INPUT jacks and switch the INPUT MODE switch to VARIABLE INPUT position, the LEVEL controls on rear panel can be used to adjust the signal level.

The input signal connected to VARIABLE INPUT also output the signal through THRU OUTPUT jacks.

Refer below inside the dotted line for usage of the THRU OUTPUT jacks.

### UNSWITCHED AC OUTLET

Use this outlet as the power supply for a component that does not need to be turned on and off by the main power switch. The maximum power capacity of this outlet is 100W. Do not connect a device that consumes a great deal of power into this outlet.

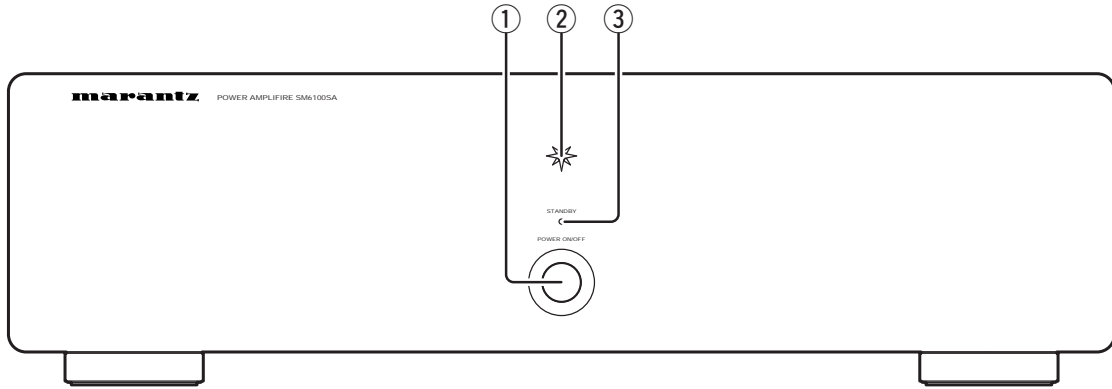


If there is no need to adjust the volume level, set the LEVEL controls to the MAX position.

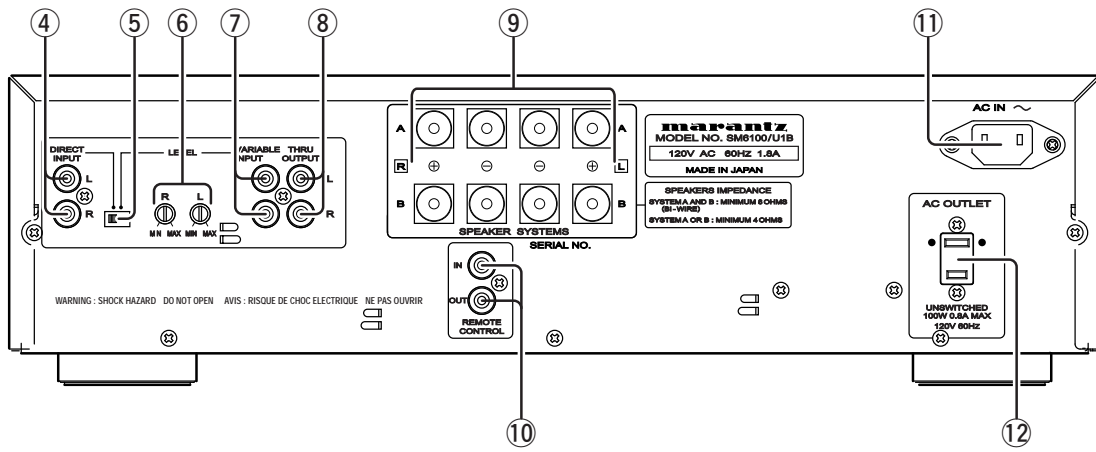
# FIGURES

ENGLISH

## FRONT VIEW



## REAR VIEW





## NAMES OF CONTROLS AND INDICATORS

### ① POWER ON/OFF switch

Press the button to turn the power on (POWER ON mode), and press it again to turn the power off (POWER OFF mode). When it required to use remote control to the power on or off, use system remote controller of the MARANTZ equipment.

### ② Power indicator

When the POWER ON mode, the indicator lights blue.

### ③ STANDBY LED

When the unit makes STANDBY mode, the indicator lights red. This indicator cannot be used except when the unit is used in combination with MARANTZ equipment provide with a power standby function.

### ④ DIRECT INPUT jacks

These jacks are the left and right signal input jacks for the DIRECT INPUT mode.

### ⑤ Input selector switch

This mode switch can be set to the DIRECT INPUT mode or VARIABLE INPUT mode.

### ⑥ LEVEL controls

These knobs controls the signal level of the left and right channels at the VARIABLE INPUT mode. They will not work at the DIRECT INPUT mode.

When the LEVEL controls set to maximum position, the speaker output level is increased approximately 6dB compared to the DIRECT INPUT mode. When the LEVEL controls set to center position, the speaker output level is equivalent level to the DIRECT INPUT mode.

### ⑦ VARIABLE INPUT jacks

These jacks are the left and right signal input jacks for the VARIABLE INPUT mode.

### ⑧ THRU OUTPUT jacks

These jacks feed the signal connected to the VARIABLE INPUT jacks ⑦ and it will not change the level when adjusting the LEVEL controls knobs ⑥. Use this output when you add another power amplifier, etc.

### ⑨ SPEAKER SYSTEM terminals

These are speaker output terminals that connect with the speaker systems using speaker cables. Refer to the connection on page 5, 6 and 7.

### ⑩ REMOTE CONTROL jacks

Connect with the REMOTE CONTROL jacks which is compatible with the MARANTZ remote control system.

The remote control allows switching the power of the SM6100SA between POWER ON and STANDBY mode.

For more details on the remote control function, refer to the user guide of the MARANTZ equipment.

### ⑪ AC IN socket

Connect to household AC power outlet by attached AC power cord. This unit can be powered by 120V AC only.

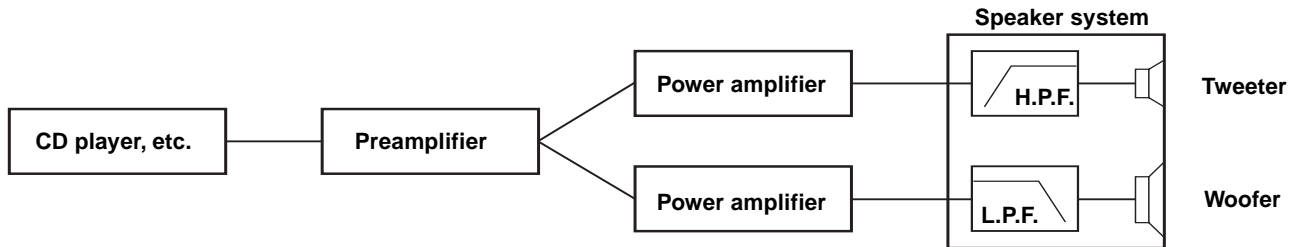
### ⑫ AC OUTLET

Use this outlet as the power supply for a component that does not need to be turned on and off by the main power switch.

The maximum power capacity of this outlet is 100W.

## WHAT IS BI-AMP ?

“Bi-amp (connection)” is a technique which is designed to make the enjoyment of sound reproduction more complete. Bi-amp refers to the use of two power amplifiers to drive individual speaker units a tweeter and a woofer. The connection shown in the figure below is known as a bi-amp connection.



By incorporating the bi-amp connection, the workload of the power amplifiers is reduced, and the interference of the bass with the treble (effects of the counter electromotive force generated by the woofer) is eliminated, thereby an improvement in sound quality. In order to perform the bi-amp connection, however, the speaker systems must support this type of connection. Please check by reading the instruction manual accompanying your speaker systems or ask the manufacturer of your speaker systems whether they support the bi-amp connection.

### WARNING

**Using the bi-amp connections with speaker systems which do not support bi-amp connections will activate the protection circuits, no sound, or the amplifiers may be damaged.**

It is recommended you select power amplifier models with the same degree of amplification and with tone colors having the same tendency for the two power amplifiers used in the bi-amp connection shown in the figure above.

The bi-amp connection can be performed by combining the power amplifiers with the preamplifier which you already have. For details, refer to the example of the bi-amp connection on page 11.

# BI-AMP CONNECTION

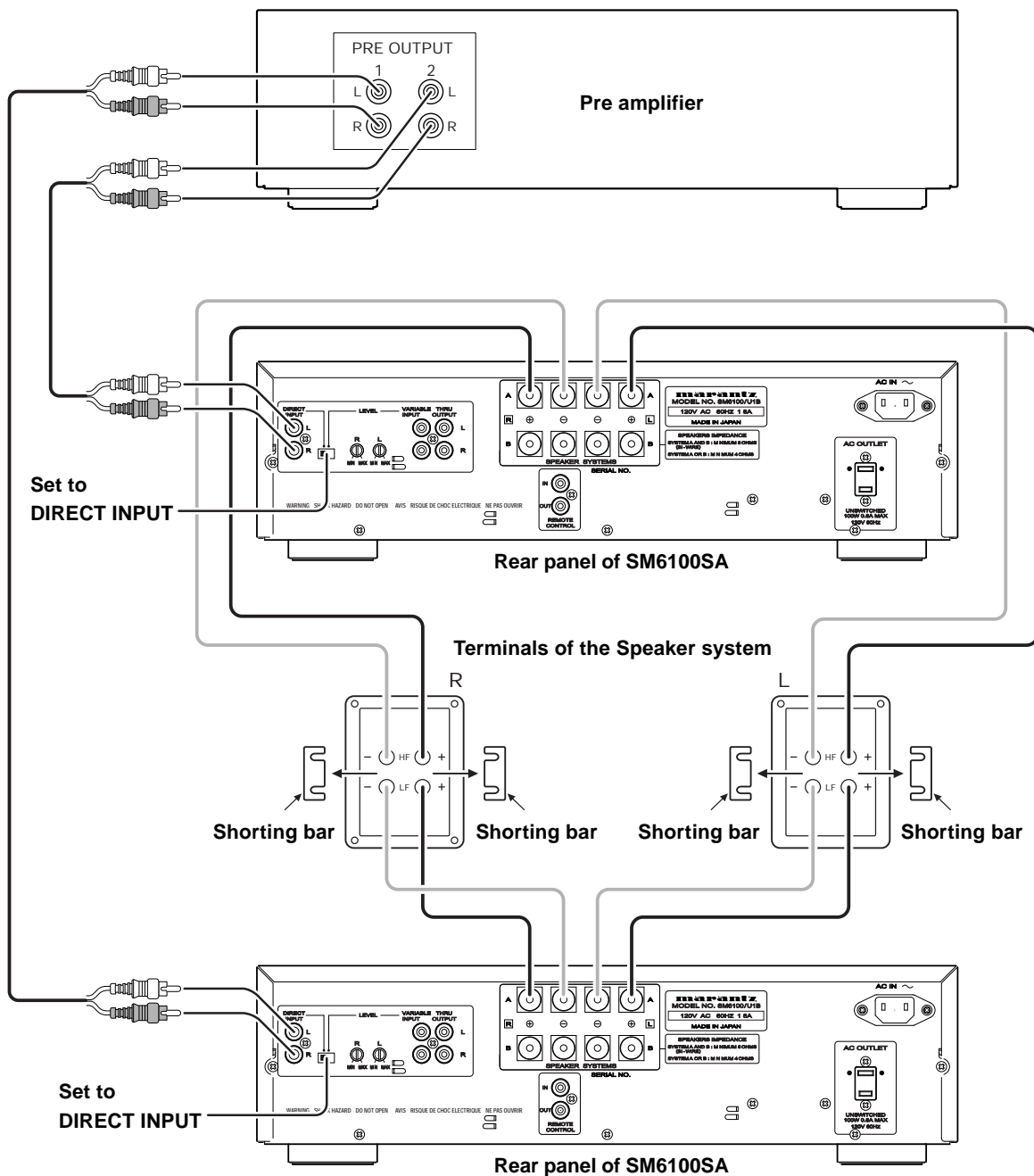
## Example of bi-amp connections using an already purchased preamplifier and two SM6100SA in combination

(Only the connections between the speakers and amplifiers are shown in the figure.)

When using an already purchased preamplifier with two sets of PRE OUTPUT jacks, the bi-amp connections can be provided as shown in the figure below. The speaker systems will then be driven more powerfully by the two SM6100SA.

The example shows the speaker terminals that support bi-amp connections. "HF" (= high frequency) in the figure denotes the input jacks of the tweeter; "LF" (= low frequency) denotes the input jacks of the woofer.

**Be absolutely sure to remove the shorting bars in the speaker terminals. Otherwise, the amplifiers may be damaged.**



For the best sound quality, we recommend that the LEVEL controls be set to the MIN position at the DIRECT INPUT mode.

## TROUBLESHOOTING

In case of trouble with the unit, first check the following before calling for service. What seems to be a serious malfunction is often due to a simple operation mistake.

If the trouble still persists after checking, please consult your dealer or nearest MARANTZ service agent.

### The amplifier does not work and the indicator does not light.

1. Check if the power cord is plugged properly into an AC power outlet.

### Sound is produced only from one of the speaker systems.

1. Check the setting of the LEVEL control knobs.
2. Turn power of the set off and change the connections of the left and right speaker systems. If sound is still not output from the same speaker system, check its connection cord or the speaker system itself.

### Sound is not produced at all.

1. Check the settings of the INPUT SELECTOR switch.
2. Check the setting of the LEVEL control knobs.
3. Check that the speaker cords are connected properly.
4. Check that the connection cords with RCA pin plugs are connected properly.

## TECHNICAL SPECIFICATIONS (DIN)

Rated power output (20Hz to 20 kHz, 2ch simultaneous drive)  
 50 W x 2 (8  $\Omega$  load)  
 60 W x 2 (6  $\Omega$  load)  
 70 W x 2 (4  $\Omega$  load)

Total harmonic distortion  
 (20Hz to 20 kHz, 2ch drive, 8  $\Omega$  load) ..... 0.01 %  
 Cross-modulation distortion (SMPTE) ..... 0.01 %  
 Output bandwidth (8  $\Omega$  load, 0.04 %) ..... 10 Hz to 50 kHz  
 Frequency response ..... 5 Hz to 80 kHz, +0 / -1 dB  
 Damping factor (8  $\Omega$  load, 20Hz to 10 kHz) ..... 100

### Input sensitivity/Input impedance

DIRECT INPUT ..... 1.5 V / 28 k $\Omega$   
 VARIABLE INPUT ..... 0.7 V / 33 k $\Omega$

S/N (IHF A network, input shorted) ..... 110 dB

Supply voltage ..... 120V AC, 60Hz

Power consumption ..... 1.8 A

### Dimensions

Width ..... 17 3/8" (440 mm)  
 Height ..... 4 7/8" (124 mm)  
 Depth ..... 12 3/4" (324 mm)  
 Weight ..... 16.5 lbs (7.5 kg)

Accessories remote control cable ..... 1

Design and specifications are subject to change without notice.

COUNTRY	COMPANY	ADDRESS
ALGERIE	Azur 2000	8, Lotissement Ben Hatadi, Alger, Algerie
ARMENIA	NGYIG Ltd.	47 A/75 St. Lalaiaants, 375000 Yerevan, Armenia
AUSTRALIA	Scan audio Pty. Ltd.	4 Station Street, Thornleigh NSW 2120, Australia
AUSTRIA	Huber & Prohaska GmbH	Taborstraße 95 / Ladestraße 1, Gebäude Hangartner, A-1200 Wien, Austria
BAHREIN	Ambassador Stores	P.O. Box 237,141, Government Avenue, Manama,Bahrein
BANGLADESH	Target	1078, Ramjoy Mohanja Lane Asadgonj, Chittagong 4000, Bangladesh
BELGIUM	Van der Heyden Audio N.V.	Brusselbaan 278, 9320 Erembodegem, Belgium
BULGARIA	Ariescommerce GmbH	Makedonia Blvd. 16, 1606 Sofia, Bulgaria
CANADA	Lenbrook Industries Limited	633 Granite Court, Pickering, Ontario
CYPRUS	Empire Hifi systems Ltd.	P.O. Box 5604, Nicosia, Cyprus
CZECH REPUBLIC	Audio International	Sokolska 41, 67902 Rajecsko, OKR,Blansko, Czech Republic
DENMARK	Audio Nord	Dali Allé 1, 9610 Noerager, Denmark
DUBAI	V.V. & SONS	P.O. Box 105, Dubai, U.A.E.
EGYPT	Solimco	9, El Attibaa St. Doki, Cairo, Egypt
ESTONIA	HiFi Club Estonia	Ehte 4, 90503 Haapsalu, Estonia
F.Y.R.O.M.	T.P. KODI	ul.Cedimir Kantargiev 21a, Skopje, Former Yugoslavian Republic of Macedonia
FINLAND	Audio Nord	Uudenmaankatu 4-6, Helsinki SF-00120, Finland
FRANCE	Marantz France	A division of Marantz Europe B.V., P.O. Box 301, 92 156 Suresnes Cedex, France
GERMANY	Marantz Deutschland	Hakenbusch 3, 49078 Osnabrück, Germany
GREECE	Adamco S.A.	188, Hippocratous Street, 11471 Athens, Greece
HEADQUARTERS EUROPE:	Marantz Europe B.V.	Building SFF-2, P.O. Box 80002, 5600 JB Eindhoven, The Netherlands
HONG KONG	Marantz Asia Ltd.	Unit 1706, Metroplaza II, 223 Hing Fong Road, Kwai Fong, N.T., Kowloon, Hong Kong
HUNGARY	Infovox Ltd.	Terez Krt.31, 1067 Budapest, Hungary
ICELAND	ID Electronics Ltd.	Armula 38, 108 Reykjavik, Iceland
INDIA	NOVA Audio Private	8,Punam Co-op.Society 29/30 Road#5, Union Park MUMBAI 400052, India
IRAN	Home Co.	5th floor no 878 Philips Building Enghelab ave, P.O. 11365/7844 Tehran, Iran
IRELAND	Marantz Ireland	Clonskeagh, Dublin 14, Ireland
ISRAEL	Elmor Ltd.	52 Heh Beiyar Street, Kikar Hamedina, Tel Aviv, Israel
ITALY	Marantz Italy	Via Casati 23, 20052 Monza (Milano), Italy, Servizio Consumatori 1678-20026, Numero Verde
IVORY COAST	Hifivoir	B.P. 2428, Abidjan 01, Ivory Coast
JAPAN	Marantz Japan Inc.	35-1 Sagami Ohno 7-Chome, Sagamihara-shi, Kanagawa 228-8505, Japan
KOREA	Mk Enterprises Ltd.	121-210, 2F Shinhan Bldg., 247-17 Seokyo-dong, Mapo-ku, Seoul, Korea
KUWAIT	alAlamah Electronics Intl.	P.O. Box 8196, Salmiah 22052, Kuwait
LATVIA	Ace Ltd.	61, LacPlesa Str., Riga LV 1011, Latvia
LEBANON	AZ Electronics S.A., 1,	P.O. Box 11 2833, Beirut, Lebanon
LITHUANIA	Accapella Ltd.	Ausros, Vartu G/5, Pasazo SKG., 2001 Vilnius, Lithuania
MALAYSIA	Wo Kee Hong Electronics Sdn. Bhd.	102 Jalan SS 21/35, Damansara Utama, 47400 Petaling Jaya, Selangordarul Ehsan, Malaysia
MALTA	Doneo Co Ltd.	78 The Strand, Sliema SLM07, Malta
MAURITIUS	SKR Electronics Ltd.	P.O. Box 685, Bell Village, Port Louis, Mauritius
MILITARY MARKET EUROPE	PASCO GmbH	PO BOX 1280, Sandhausen 69200, Germany
NETHERLANDS	Marantz Domestic Sales	A division of Marantz Europe B.V., Building SFF2, P.O. Box 80002, 5600 JB Eindhoven, The Netherlands
NEW ZEALAND	Scan audio Pty. Ltd.	4 Station Street, Thornleigh NSW 2120, Australia
NORWAY	Audio Nord	Sandkerveien 64, Oslo 0483, Norway
OMAN	Mustafa & Jawad Trading CO.	P.O. Box 1918, Ruwi, Oman
POLAND	Philips Polska Sp. z.o.o.	Al.Jerozolimskie 195b, 02 222 Warszawa, Poland
PORTUGAL	Corel2	Comércio de Electrónica Lda., Av. Luis Bivar, No 85 A, 1050 Lisboa, Portugal
PROFESSIONAL EUROPE	Marantz Professional Products	Kingsbridge House, Padbury Oaks, 575-583 Bath Road, Longford, Middlesex UB7 0EH, U.K.
PROFESSIONAL U.S.A.	Marantz Professional Products	Distributed by: Superscope Technologies Inc., 1000 Corporate Blvd. Ste.D, Aurora, Illinois
QATAR	Almana & Partners W.W.L.	P.O. Box 49, Doha, Qatar
REUNION	Vision +	180 Rue du Marechal Leclerc, 97400 Saint Denis, Ile de la Reunion
ROMANIA	Nova Music Entertainment	5, Zagazului Str. Bl.1G,apt.18, sector 1,Bucharest, Romania
RUSSIA	Absolute Audio	7/2, Montazhnaya Street, 107497 Moscow, Russia
SAUDI ARABIA	Adawlia Univ. Electr. Apl	P.O. Box 2154, Alkhobar 31952, Saudi Arabia
SINGAPORE	Forward Marketing (S) Pte. Ltd.	Wo Kee Hong Centre, 29 Leng Kee Road, Singapore 159099, Singapore
SLOVAKIA	Bis Audio s.r.o.	Nam. SNP 10, 96001 Zvolen, Slovakia
SLOVENIA	Bofex	Smartinska 152, HALA V/3, 61000 Ljubljana, Slovenia
SOUTH AFRICA	Coherent Imports (PTY) Ltd.	P.O. Box 1614, Alberton, 1450, South Africa
SPAIN	Marantz Spain	Martinez Villergas 2, Apartado 2065, Madrid 28027, Spain
SRI LANKA	The listening Room	Mezzanine Floor, The Landmark 385, Galle Road, Colombo - 3, Sri Lanka
SWEDEN	Audio Nord	Almedalsvagen 4, Gotenborg 402-23, Sweden
SWITZERLAND	Sound Company AG	Postfach, 8010 Zürich, Switzerland
SYRIA	Hamzeh & Partners	Hafez Ibrahim Str. No 117, Damascus Shalan, Syria
TAHITI	Covecolor	Av. Prince Hinoi, Cours de l'union sacré, P.O. Box 2334, Papeete, Tahiti
TAIWAN	Pai-Yung Co. Ltd.	6th No 148 Sung Kiang Road, Taipei 10429, Taiwan R.O.C.
THAILAND	MRZ Standard Co. Ltd.	746-750 Mahachai Road, Wangburapa, Bangkok 10200, Thailand
TUNESIA	Societe EDEVIG	40, Avenue du Golfe Arabe, El Menzah, 1004, Tunisia
TURKEY	Türk Philips Ticaret A.S.	Yukari Dudullu Organize sanayi Bolgesi, 2.Cadde no.28, 81260 Umraniye-Istanbul, Turkey
U.K.	Marantz Hifi UK Ltd.	Kingsbridge House, Padbury Oaks, 575-583 Bath Road, Longford, Middlesex UB7 0EH, U.K.
U.S.A.	Marantz America Inc.	440 Medinah Road, Roselle, IL 60172, U.S.A.
YUGOSLAVIA	ITM Company	Omladinskih Brigada 86, 11070 Belgrade, Yugoslavia
EXPORT	Marantz Domestic Sales	A division of Marantz Europe BV,Building SFF2, P.O. Box 80002, 5600 JB Eindhoven, TheThe Netherlands

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